Lanzalet

Decarbonizing Aviation... Today

Jimmy Samartzis, CEO

January 6, 2023



To preserve the world and the opportunity for future generations to fully experience it and thrive.

LanzaJet's Vision developed by LanzaJet Employees



2030 Today

0.03% > 600x

Sustainable Aviation Fuel (SAF) Use of ~5M Gallons vs Fossil Jet Fuel Use in the United States

Growth in SAF Production Required to Meet the 2030 Ambition of 3B Gallons in the United States



Catalyzing a New Global Market

For Commercial Aviation...

US

World

Jet Fuel Consumption (Pre-Covid) ~21B+

~96B+

Gallons / year

Gallons / year

Sustainable Aviation Fuel Production (2021)

~5M

Gallons / year

~33M

Gallons / year

New Goals





 New Scale in Technology & Production



Catalyzing
a New
Global
Market

Sources: World = IATA, US = Various including Regulatory Incentives



LanzaJet – Leading the Industry

12+ years

of development work which started with the US DOE and LanzaTech 2018

LanzaJet technology and data as basis for ASTM pathway approval 300M

Gallons Per Year of SAF Production Announced to Date 1 Billion

Gallons of SAF by 2030 Announced at The White House in Sep 2021 2023

World's first
ethanol
Alcohol-to-Jet
(ATJ) commercial
plant operational
in Soperton, GA





1 BILLION GALLONS OF SAF IN THE US BY 2030

World-Class Investors and Funders



















- ✓ Funding commitments
- ✓ Commercial-scale projects commitments
- ✓ Offtake commitments
- ✓ Knowledge, support, and secondees commitments
- Feedstock supply flexibility commitments
- ✓ Innovation commitments



First SAF Investment by Bill Gates' Breakthrough Energy



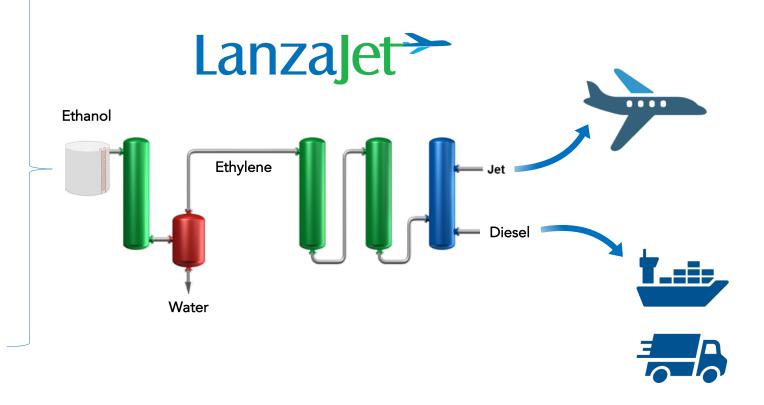
LanzaJet's Breakthrough Energy Catalyst grant...

- ✓ Reduces green premium
- Enables urgent action
- Catalyzes global growth



Building the Ethanol Industry

- A Leveraging & Transitioning Existing Ethanol Supply
 - Existing low-CI ethanol production
 - Cellulosic ethanol
 - Waste-based ethanol
- Building New Waste-Based Ethanol Supply
 - Industrial / landfill off-gasses
 - Agricultural waste and residues
 - Municipal Solid Waste (MSW)
 - Corn fiber cellulose / sugarcane bagasse
 - Direct Air Capture (DAC) CO₂ + H₂





Low CI Feedstock is a Non-Issue

Illustrative Sources of Low-CI Ethanol

US



- Energy crops
- Ag waste
- Landfill biogas
- Ethanol mill offgasses
- Industrial offgasses

UK & Europe



- Woody waste
- Industrial & refinery offgasses
- Municipal solid waste (MSW)

Australia & NZ



- Waste from energy crops
- NZ: Woody waste

Canada



- Woody waste
- Refinery offgasses

South America



- Energy crops
- Bagasse
- Ethanol mill offgasses

Asia & SE Asia



- Energy crops
- Ag waste
- Industrial & refinery offgasses
- MSW

Active Development Efforts



LanzaJet SAF is Drop-In and Exceeds Standards



- ✓ US DOE supported technology development program
- ✓ Meets and exceeds ASTM SAF Specification D7566; Approved by ASTM in 2018 as a pathway using LanzaJet data
- ✓ Greater than 70% reduction in GHG emissions; Can be carbon negative with the right ethanol
- ✓ Clean burning with no sulfur and 95% less particulates
- ✓ Blend up to 50% with fossil jet fuel as allowed under ASTM; Used as a 92% SAF / 8% fossil jet blend
- ✓ Renewable diesel co-product for road, marine, and stationary uses
- ✓ Produce from ANY source of ethanol



First Plant Operational in '23 - Soperton, GA









Economic Development Impact

- Impact at Port of Savannah, road transport, rail transport, and at the site in Soperton, GA
- >\$70M in annual economic activity
- >\$200M capital investment to develop infrastructure asset
- ~125 direct construction jobs
- 31 permanent jobs at site
- Up to 50 indirect jobs on ongoing basis
- \$22M in annual wage spend during construction / \$5M in annual wage spend during operations



Soperton Construction Event in Dec 2022





Global Supporters at our Georgia Event



ZZETON

Gulfstream

































Policy Impacts Development and Fuel Use

International:

- UN Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)
- UK, Canada, and EU country policies

National:

- Inflation Reduction Act Blender's Tax Credit / Clean Fuel Production Credit
- US EPA Renewable Fuel Standard

• State:

- CA Low Carbon Fuel Standard (LCFS)
- Various states contemplating new state programs for SAF production and use

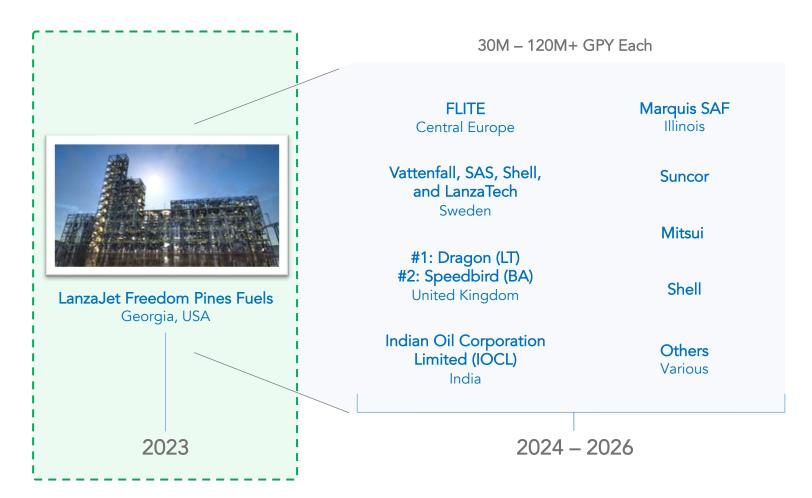


Deploying our Technology Globally



Pilot Plant Georgia, USA

2014 – 2017





Someday is Now.

